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AMEDD Shelter History since DEPMEDS

- Aging DEPMEDS system ~ 25 years
- 1999 – Future Medical Shelter Systems (FMSS) born – CSI ~ ORD
- 2001- ORD withdrawn
- 2003 Vertigo Air Beam Shelter Developed under FMSS + ISO potential replacements
- 2004 – SG directs interim “shelter” needed
- 2005 – Tent-off at Fort Polk – Alaska chosen – CSI supported (Vertigo not mil-spec tested or production ready)
- 2006 – Force Provider adopts AMEDD developed Vertigo Air Beam shelter
- 2006-2009 – MRMC is working with DCDD on new reqs using FP CPD, and potentially migrating requirements to PM Force Sustainment/Force Provider. Desire is to be the same as “big Army” and use shelter technology that MRMC helped develop under Future Medical Shelter System Program.



Shelter Efforts under AMEDD

- Inclusion in Force Provider (CPD PM FSS, PM Force Provider, CASCOM, PM COLPRO, OTSG and AMEDD)
- Continued fielding of Interim AMEDD shelters – MRI
- Testing of the Medical Re-engineering Initiative (MRI) in April FY10
- Continued fielding of Interim AMEDD shelters to CSHs
- Testing of the Force Provider Expeditionary – Medical Shelters as a CSH
- Future Medical Shelters System Open Competition in FY10 for hard-walled shelters
- MRMCM supporting research on soft-walled and hard-walled shelter improvements at Natick, including Force Provider



AMEDD path towards Force Provider

- AMEDD reqs inserted into FP CPD – Staffing now to ARCIC
- MRMC promised 1 EEH in FY10 and 1 EEH in FY11 as a foot in the door with PM FSS and Army G8
- ASA-ALT MRMC DASC identified short-falls in OPA funds in FY10 and FY11
- Result – funds pursued in FY09 – Funds obtained for OPA
- Currently 6 – 84 bed EEHs plus billeting are on order with FP (soft-walled shelters only)
- Schedule is approximately 24 weeks for 1st EEH
- Force Provider Expeditionary – Medical Shelters (FPE-MS) will not be fielded until COLPRO issues resolved.
- Plan is for FY14 POM cycle at 2 - 248 bed CSH per year, up to 26



Issues with moving to FP early

- FP COLPRO Not tested
- Configuration challenges
- COLPRO Kitting doesn't align with 32' only FP CSH – need to identify potential compatibility problems
- Conflicts with current MRI program
- Current testing of MRI is scheduled for the Spring - April
- AMEDD will have 3 shelters – TEMPER, Alaska, FP – logistics impact for AMEDD-MRMC
- Fielding Strategy is needed dependent on testing
- Form, Fit and Function testing in late FY10, early FY11 of FPE-MS



AMEDD Interim Shelter Fielding Schedule

- **Activities/Units Fielded To-Date:**
 - RTS-MED Ft. Gordon, GA
 - RTS-MED Ft. McCoy, WI
 - RTS-MED Camp Parks, CA
 - Camp Bullis Training Site, San Antonio, TX
 - 121 Gen Hospital, Seoul, Korea
 - 28th CSH, Ft. Bragg, NC
- **Future Fielding – FY 09-10 (based upon funding for support ops; IAW USAMMA Fielding Schedule – work in progress):**
 - 31st CSH – 84 Bed
 - APS Japan – EAC
 - Korea – Corps
 - 212th CSH – 84 Bed



Testing – FY10

- COLPRO function evaluation testing for CP DEPMEDS MRI configuration – currently the AMEDD Test Board, DCDD and MRMC is working on this with the 115th CSH (Medical Reengineering effort replaces MF2K)
- Form, fit, function evaluation testing for Force Provider Expeditionary – Medical Shelters configuration – Just starting
- Open Competition for FMSS – Hard-walled shelters
- Open Competition for FST Trailer based system



FMSS CSI OPA Funds

- Have CSI OPA funds for open competition
- Vendors under FMSS have completed Mil-Spec Testing
- Plan on competitive down select in early FY10 for Hard-walled shelters
- Need USAMMA assistance on procurement and source selection
- Source Selection Board staffed
- Procurement package is in the works for Nov submission to contracting branch
- Trailer based FST system will follow



MRMC Funded RDT+E Efforts at Natick

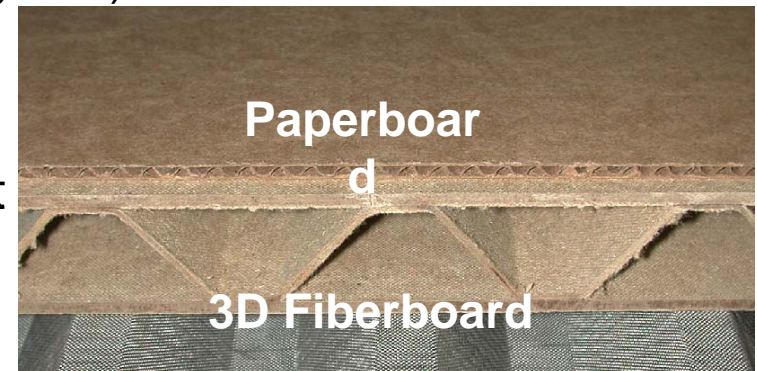
- Fabric Structures Team, Engineering Fabrication Directorate Natick
 - FP COLPRO Analysis
 - HEPA filter work
 - Insulation efforts, lighting, net energy studies and misc
- Hard-walled Shelters Composite Structures Team Natick
 - New panel design for current ISOs – using Department of Forestry and Navy resin based materials – lower cost and easier to make and lower LCC
 - Auto-leveling system
 - Floor stabilization
 - ISO lighting
 - Smart Power management
- Helped Fund development of the Force Provider Personal Hygiene Shelter (MUMS) and BICON solutions for the CSH



3D Engineered Fiberboard Investigation

- **Why:**

- Originally developed to facilitate housing and furniture industries, make use of forest “waste” materials and consumer wastes
- Potential to replace “specialty” nomex honeycomb core with mass produced core material
 - Lower cost due to economies of scale
- Potential to set new standard for next generation of shelters
 - Low cost one time use structure
 - Medium term deployment (3-5 years)
 - Biodegradable
 - Reduced logistics burden
- Potential to reduce ISO Shelter cost
 - Lower manufacturing costs
 - Lower materials cost





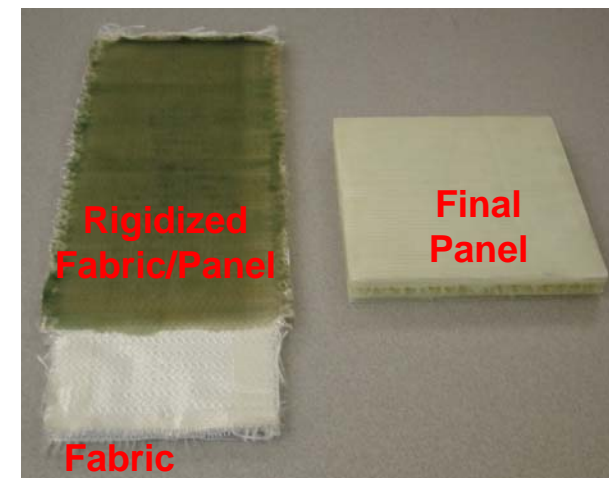
Self Rigidizing Panel Construction



Investigation

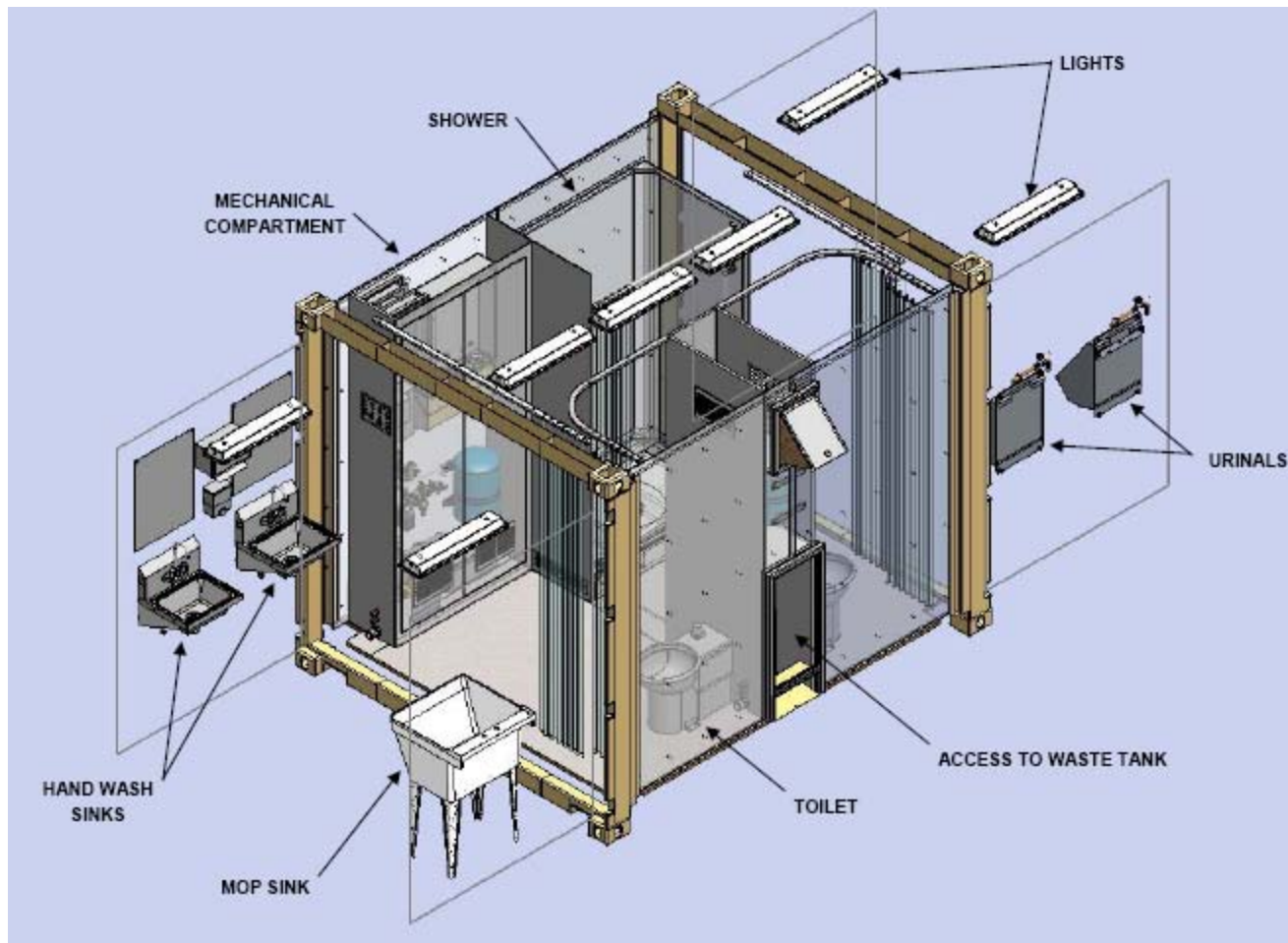
• Why:

- Panel would start as flat fabric which would be wetted with epoxy resin in a continuous automated process.
- As fabric is wetted, the cross stitch threads would absorb epoxy and would begin to “stand up”, creating a three-dimensional structure.
- As the epoxy sets, a large flat structural panel would be created which would be cut to dimension for final work and shelter assembly.
- Potential to reduce ISO Shelter cost
 - Lower manufacturing costs
 - Lower materials cost





Personal Hygiene Shelter





772nd FAST Team OEF

- Requirement for a trailer based ecu/generator/shelter system that could be towed by a JD Gator – transport by Chinook
- Under FMSS, parallel development of the Expeditionary Shelter System ESS, 1 prototype fielded to OEF for evaluation

**Trailer
Based Gen
Set, ecu and
Air-beam
shelter**





Way Ahead

- Continue to work with CASCOM, PM FSS, PM Force Provider, and PM COLPRO
- Test MRI in the Spring
- Continue to field AMEDD Interim Shelters
- Test Force Provider Expeditionary – Medical Shelters configuration – form, fit and function
- Resolve COLPRO issues with FP
- Open competition in FY10 for ISOs and FST Trailer Shelter
- Continue to support Natick in shelter advancements



**Expeditionary Shelter
System**

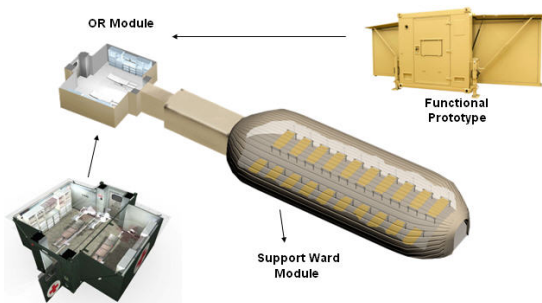


MRI - Alaska



MSPU

Questions ?



EADS ISO 2 sided



Force Provider



MMIC ISO 2 sided